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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,775	05/25/2001	Pi-Yuan Shin	FIP-827FP13	5774

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BROWN & MICHAELS, PC
400 M & T BANK BUILDING
118 NORTH TIOGA ST
ITHACA, NY 14850

EXAMINER

NGUYEN, VAN KIM T

ART UNIT	PAPER NUMBER
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2151

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/865,775

Applicant(s)

SHIN, PI-YUAN

Examiner

Van Kim T. Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

RD

DETAILED ACTION

1. This Office Action is responsive to communications filed on April 25, 2005.

Applicant's arguments, see page 5, paragraph 3, with respect to claims 2, 5, 8, and 11 have been fully considered and are persuasive. The rejection of claims 2, 5, 8, and 11 has been withdrawn. The revision of the abstract has been received and accepted.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because the unlabeled graphical lines A, B, C, D or shaded/non-shaded areas shown in Figure 5 should be provided with descriptive text labels.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-4, 6-7, 9- 10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art, in view of Badie et al (US 5,490,219).

Regarding claims 1, 4, 7, and 10, as shown in Figures 1-2, the admitted prior art discloses a transmission direction switching device (200) for a half-duplex communication apparatus, the half-duplex communication apparatus including a UART (130) and a half-duplex communication interface driver (140) connected to the UART via a sending line (170, 190) and to the transmission direction switching device (200) via a direction control line (210); the transmission direction switching device comprising:

a data transmission detector (203) coupled to the sending line for detecting any data to be sent and sending that data such data exists; and

a direction-switching rule executor (204) for receiving the data sent out by the data transmission detector, and sending a direction switching signal via the direction control line to the half-duplex communication interface driver to set a transmission direction of the half-duplex communication interface driver to a sending direction (170) or receiving direction (190) based on whether when the data receiver from the data transmission detector is a signal 0 (low) or 1 (high). (See page 2: line 26 – page 7: line 5).

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As shown in Figures 1-5, Badie teaches a half-duplex communication apparatus (400) having signal subtraction function (100; col. 2: line 30 – col. 3: line 49).

As it is highly desirable to be able to send and receive clear, error-free signals, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Badie's communication device having subtraction (noise canceling/reducing/eliminating) function in a communication system, motivated by the desire to provide a quality communication system in which signals received are the same as signals sent.

Regarding claims 2, 5, 8, and 11, the admitted prior art also discloses the half-duplex communication interface driver is in compliance with RS-485 standard. (page 2: lines 15-26).

Regarding claims 3, 6, 9, and 12, the admitted prior art also discloses the transmission direction switching device is a programmable logic device (202: Figure 2).

However, the admitted prior art does not call for the half-duplex communication interface driver having signal subtraction function.

As shown in Figures 1-5, Badie teaches a half-duplex communication apparatus (400) having signal subtraction function (100; col. 2: line 30 – col. 3: line 49).

As it is highly desirable to be able to send and receive clear, error-free signals, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Badie's communication device having subtraction (noise canceling/reducing/eliminating) function in a communication system, motivated by the desire to provide a quality communication system in which signals received are the same as signals sent.

Response to Arguments

4. Applicant's arguments filed April 25, 2005 have been fully considered but they are not persuasive.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., **not** detecting messages from **both** the bus 100 and from the sending line the start bit) are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Van Kim T. Nguyen whose telephone number is 571-272-3073.

The examiner can normally be reached on 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung, can be reached on 571-272-3939. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Van Kim T. Nguyen
Examiner
Art Unit 2151

vkn


ZARNI MAUNG
SUPERVISORY PATENT EXAMINER